

**Amendments to the Specification:**

Please replace paragraph [0001] with the following amended paragraph:

**[0001]** The invention concerns improvements in wideband power amplifiers for communication ~~or~~ of RF signals and in particular to power amplifiers employing envelope elimination and restoration (EER) of the type disclosed in U.S. Patent No. 6,300,826 to Mathe et al.

Please replace paragraph [0003] with the following amended paragraph:

**[0003]** This extremely wideband modulator, working as a power supply for the power amplifier, must have high power gain, high efficiency ~~besides~~ and broad frequency response, because it directly affects the overall system power efficiency. To achieve these goals, two amplifiers are employed: one amplifier has a low to high frequency response, but low efficiency and low power; the other covers from D.C. to about 50 % bandwidth, and delivers high current with high efficiency. The high frequency amplifier amplifies the highest frequency components of the envelope signal while the power amplifier amplifies the remaining (medium frequency, low frequency, and D.C.) components. The power amplifier must be capable of generating high current at low frequencies, while the high frequency amplifier must be capable of replicating high frequency components in the

incoming signal (leading and trailing edges, spikes, and the like). The two amplifiers are therefore very different in their output characteristics. The difficulty arises in combining the outputs of the two amplifiers so as to obtain a faithful amplified reproduction of the envelope signal  $A(t)$ . The above-referenced patent to Mathe et al. discloses one technique in which a feedback loop governs the output of the power amplifier based upon the output of the high frequency amplifier.

Please replace paragraph [0016] with the following amended paragraph:

**[0016]** FIG. 3 illustrates the EER modulator 115 in accordance with the present invention, including the high frequency operational amplifier 117 and the switching power amplifier 119. The high frequency amplifier 117 is an operational power amplifier preferably ~~an operational amplifier~~ with a push-pull power output stage. Such amplifiers amplify high frequencies faithfully, but are very inefficient at high power. Therefore it is DC blocked with capacitor 320, and used to cover only an upper portion of a wide frequency band. The high frequency operational amplifier 117 has a negative feedback loop 305 between its output and its negative input through a voltage divider consisting of resistors 310, 315. The negative feedback loop 305 reduces distortion and ~~lower~~ output impedance. The output of the high frequency operational amplifier 117 is coupled through a high pass filter capacitor 320 to the output 325 of the EER modulator. The output 325 of the EER

modulator is the power supply of the amplifier 111 in the phase channel 105 of FIG. 1.